#### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

### WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-022717 Address: 333 Burma Road **Date Inspected:** 10-Apr-2011

City: Oakland, CA 94607

OSM Arrival Time: 1900 **Project Name:** SAS Superstructure **OSM Departure Time:** 700 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** See below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No **Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** OBG

### **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Kelly Leavitt, was present during the times noted above for random observations relative to the work being performed.

Bay 14

This QA Inspector observed the following work in progress for Bay 14.

ZPMC was using the Shielded Metal Arc Welding (SMAW) process.

ZPMC QC is identified as Wong Xiang Pin, CWI Wang Jun.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

Components; OBG 14 W PCMK: SEG3020U Weld No: 591

Welder: 067572, 066002, 067609, 067904

WPS-B-P-2214-TC-U4b-FCM-1

Components; OBG 14 W PCMK: SEG3020BB

Weld No: 079

Welder: 045246, 045196

WPS-B-P-2214-TC-U4b-FCM-1

(Continued Page 2 of 5)

Components; OBG 14 W PCMK: SEG3020BB

Weld No: 047

Welder: 069841, 066261

WPS-B-P-2214-TC-U4b-FCM-1

Components; OBG 14 W PCMK: SEG3020AC

Weld No: 031 Welder: 067611

Weld Repair No. B-CWR20412

WPS-345-SMAW-2G(2F)-FCM-Repair-1

Components; OBG 14 W

PCMK: SEG3020X

Weld No: 004

Welder: 037779, 067829

WPS-B-P-2212-TC-U4b-FCM-1

Components; OBG 14 W (see photo below)

PCMK: DP3172-001 Weld No: Fit Up Welder: 066398 WPS-B-P-2214

This QA Inspector observed the following work in progress for Bay 14.

ZPMC was using the Flux Core Arc Welding (FCAW) process.

ZPMC QC is identified as Wong Xiang Pin, CWI Wang Jun.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

Components; OBG Traveler Rails

PCMK: TR3008TR1-001

Weld No: 002,003 Welder: 066695

WPS-B-T-2232-ESAB

Components; OBG Traveler Rails

PCMK: TR3008TR3-001

Weld No: 010,011 Welder: 066734

WPS-B-T-2232-ESAB

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Components; OBG Traveler Rails

PCMK: TR3021TR2-001

Weld No: 004 Welder: 201215

WPS-B-T-2232-ESAB

Components; OBG Traveler Rails

PCMK: TR3021TR2-001

Weld No: 011 Welder: 058245

WPS-B-T-2232-ESAB

Components; OBG 14W

PCMK: SEG3020\* Weld No: 012 Welder: 045143

WPS-B-T-2232-ESAB

Components; OBG 14W

PCMK: SEG3020\* Weld No: 016 Welder: 201583

WPS-B-T-2232-ESAB

Components; OBG 14W

PCMK: SEG3020S Weld No: 054 Welder: 062708

WPS-B-T-2233-ESAB

Components; OBG 14W

PCMK: SEG3020T Weld No: 319,321 Welder: 048433

WPS-B-T-2232-ESAB

Components; OBG 14W

PCMK: SEG3020T Weld No: 299 Welder: 2038713 WPS-B-T-2233-ESAB

Components; OBG 14W

PCMK: SEG3020G

(Continued Page 4 of 5)

Weld No: 006 Welder: 067876

WPS-B-T-2232-ESAB

Components; OBG 14W

PCMK: SEG3020J Weld No: 018 Welder: 066673

WPS-B-T-2233-ESAB

Components; OBG 14W PCMK: SEG3020AH

Weld No: 014 Welder: 066614

WPS-B-T-2232-ESAB

Heat straightening of PCMK TR3002TR1-001-002,004,006,007,008,010,011, under approved Heat Straightening procedure, HSR1 (B)-10279. The in process temperature was observed as 350°C. The ZPMC QC was identified as Wong Xiang Pin. The approved HSR procedure stated that a maximum temperature of 650°C with 1-3 numbers of applications was allowed. The distortion that was previously measured and recorded on the HSR was Maximum 6mm.

Heat straightening of PCMK TR3002TR2-001-002,004,006,007,008,010,011, under approved Heat Straightening procedure, HSR1 (B)-10279. The in process temperature was observed as 390°C. The ZPMC QC was identified as Wong Xiang Pin. The approved HSR procedure stated that a maximum temperature of 650°C with 1-3 numbers of applications was allowed. The distortion that was previously measured and recorded on the HSR was Maximum 6mm.

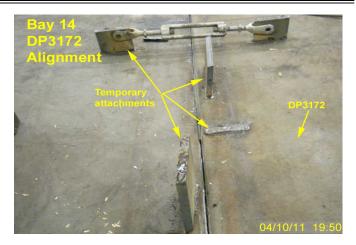
Heat straightening of PCMK TR3008TR1-001-002,004,006,007,008,010,011, under approved Heat Straightening procedure, HSR1 (B)-10279. The in process temperature was observed as 470°C. The ZPMC QC was identified as Wong Xiang Pin. The approved HSR procedure stated that a maximum temperature of 650°C with 1-3 numbers of applications was allowed. The distortion that was previously measured and recorded on the HSR was Maximum 6mm.

Heat straightening of PCMK TR3008TR2-001-002,004,006,007,008,010,011, under approved Heat Straightening procedure, HSR1 (B)-10279. The in process temperature was observed as 420°C. The ZPMC QC was identified as Wong Xiang Pin. The approved HSR procedure stated that a maximum temperature of 650°C with 1-3 numbers of applications was allowed. The distortion that was previously measured and recorded on the HSR was Maximum 6mm.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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### **Summary of Conversations:**

"No relevant conversations."

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact James Devey 1500026784, who represents the Office of Structural Materials for your project.

Inspected By:	Leavitt,Kelly	Quality Assurance Inspector
Reviewed By:	Riley,Ken	QA Reviewer